Library of the British Museum,[11] but we do not know of a copy in this country. We shall be glad to be informed if there is a copy in an American library.

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TERRESTRIAL MAGNETISM

The results of magnetic observations made by the Coast and Geodetic Survey between July 1, 1909, and June 30, 1910, have recently been printed at the Government Printing Office in Washington. The report is edited by R. L. Faris, Inspector of Magnetic Work; assistant, Coast and Geodetic Survey. The report includes the values of the three magnetic elements as measured during the fiscal year, at two hundred and thirty-two stations on land distributed through thirty-nine states and territories. Several other land stations were occupied and partial results are given for these. Of this number, seventy-five were "repeat" stations, nearly one third of the whole number. "The resulting values of annual change show that, as compared with 1905, west declination is increasing more rapidly in New England and the Middle States and east declination is increasing more rapidly in the western part of the country. The position of the line of no change is apparently about the same as in 1905." The year 1905 is doubtless referred to because to that year the last and most complete declination charts yet printed for the entire country were uniformly reduced. The results of a considerable number of observations at sea are given in this report. In connection with the land work, the continuous records of the magnetic observatories, five in number, were available, except for the time during which the instruments of the observatory at Baldwin, Kans., were being removed to Tucson, Ariz., the observatory at the former place being discontinued in October, 1909, and a new one established at the latter in November, 1909.

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[11] Rieu, "Catalogue of the Persian Mss. in the Library of the British Museum," 1879, Vol. 1, pp. 96–97.

SPECIAL ARTICLES

REDISCOVERY OF SOME CONRAD FORMS

T. A. Conrad in "Description of Cretaceous and Tertiary Fossils," published in part two of the Report on the United States and Mexican Boundary Survey, describes and figures the following cretaceous forms collected by Arthur Schott, ascribing them to the localities given.

Mactra texana,	Prairie between Laredo and Rio Grande City.
Cardium congestum,	Devils River.
Rostellaria? collina, *Rostellaria? texana,* *Natica collina,* *Natica texana,* *Buccinopsis parryi,*	Between Devils River and the Pecos.

The first-named locality is in the Eocene and at the others only rocks of Fredericksburg and Washita are exposed. These forms have not since been found in either locality named and I have not been able to find any record of their having been recognized, since the time of their description, anywhere else in this region, although, as will be shown later, one or two of them have been collected by other workers in this field.

In working over the collections made in January, 1909, by Messrs. W. F. Cummins and W. Kennedy along the Rio Grande below Eagle Pass, I found a number of fairly good specimens of each of the species named.

Our localities and collections are as follows:

Mouth of Cuevas Creek:
Rostellaria? (Volutomorpha) texana Con.
Cardium congestum Con.

One and one half miles above Las Isletas:
Mactra texana Con.
Pholadomya sp.
Buccinopsis parryi Con.
Rostellaria? (Volutomorpha) texana Con.
Etc.

Wash 1 m. above Las Isletas:
Sphenodiscus pleurisepta Con.
Ostrea cortex Con.
Mactra texana Con.

Pholadomya sp.
Cardium congestum Con.
Buccinopsis parryi Con.
Rostellaria? (*Volutomorpha*) *texana* Con.
Pugnellus sp. Etc.

Las Isletas:
Sphenodiscus pleurisepta Con.
Mactra texana Con.
Cardium congestum Con.
Turritella sp. Etc.

Arroyo Toro Colorado, 1 m. below Las Isletas:
Sphenodiscus pleurisepta Con.
Nautilus dekayii?
Ostrea sp.
Mactra texana Con.
Crassatella sp.
Cardium congestum.
Breviarca sp.
Buccinopsis parryi Con.
Pugnellus sp.
Natica collina Con.
Natica texana Con.
Rostellaria? (*Volutomorpha*) *texana* Con.
Etc.

This locality also furnishes a number of specimens of crabs.

A selection of specimens representing several of the species under discussion, together with a number of others occurring in the same beds, were submitted to Dr. T. W. Stanton, of the United States National Museum, and my identifications of the Conrad forms were confirmed by Dr. L. W. Stephenson, who states that the *Rostellaria?* of Conrad is a Volutomorpha.

Major Emory, in the first part of the Boundary Survey report, on page 68, gives a description of Las Isletas and the falls of the Rio Grande with a full-page illustration opposite. This description would indicate that the falls of the Rio Grande and Las Isletas were the same. The truth is that Las Isletas is located about the mouth of Castaño Creek, while the falls are some four miles lower down the river just below the mouth of Caballero Creek.

It will thus be seen that our collections were made from localities directly on the line of travel of the Boundary Survey party and it seems highly probable that the original specimens described by Mr. Conrad were in reality obtained from these same beds.

The horizon is the uppermost portion of our Escondido beds. The fossils are among the latest Cretaceous forms of which we have any present knowledge in this region.

The Cretaceous-Eocene contact is well shown three miles below Toro Colorado, just above the falls of the Rio Grande and on Caballero Creek.

The only other records I can find of any of these forms are as follows:

Professor G. D. Harris, in "The Tertiary Geology of Southern Arkansas," gives a list of fossils collected by Dr. C. A. White in 1887 at his camp eighteen miles southeast of Eagle Pass, Texas, which were supposed to be basal Tertiary. Among these there is a cardium which Mr. Harris figures both in this paper and later with his Midway fauna "Bulletin of American Paleontology, No. 4," without giving it a specific name.

This camp was probably at the Eagle Pass-Laredo road crossing near the junction of Cuevas and Peña creeks and on or near the Cretaceous-Tertiary contact. The cardium is unquestionably the *Cardium congestum* of Conrad, while the other forms named by Professor Harris are from the overlying Midway.

Mr. T. W. Vaughan in his Report on the Rio Grande Coal Fields of Texas gives a list of fossils collected 18½ miles southeast of Eagle Pass. This must also have been in the same vicinity. His list contains a form identified as "*Mactra* cf. *mooreana*" which, in view of our later discovery, may be more properly called *Mactra texana,* and *Cardium* cf. *eufalense* may be *Cardium congestum.*

E. T. DUMBLE

BACTERIOLOGICAL METHODS FOR THE ESTIMATION OF SOIL ACIDITY

THE general prevalence of acidity in the older soils of the United States has been the cause of increasing comment, within the past few years. It is well known that the tendency of cultivated soils to become acid is intensified by the use of commercial fertilizers, and, gen-